INDEX TO VOLUME 324

1987

SUBJECT INDEX

Papers are listed under subject headings with first author's name in parenthesis. All authors are listed with titles of their papers in alphabetical order in the Author Index.

A

Adaptive control (El-Shal), 83
Analog signal processing (Al-Kabbani), 319
Analytical mechanics (Arczewski), 351, 369
Application of Watson's transformation (Fikioris), 1
Asymptotic procedures (Mickens), 263

B

Balanced realizations (Shokoohi), 453
Block-pulse functions (Kalat), 73

C

Characteristic matrix *sI-A* (Ohta), 245
Circuit design (Al-Kabbani), 319
Collocation method (Zamani), 205
Communication theory (Schnitzer), 19
Controller design (Sanathanan), 431
Convergence of infinite series (Fikioris), 1
Counting matchings in graphs (Farrell), 331

D

Damped system response (Padovan), 491
Data complexity (Tsao), 43
Definition of loss angle of capacitors (Wang), 387
Definition of loss angle of electrical insulating materials (Wang), 387
Design of 2-D filters (Abiri), 187
Difference equations (Mickens), 263
Dipolar flow (Sran), 303
Discrete-time systems (El-Shal), 83
Discrete-time systems (Hwang), 149
Distributed control problems (Sadek), 97
DM decomposition (Ohta), 245

E

Eigenvalue calculations (Zamani), 205
Electrical rotors (Gavril), 219
Error complexity (Tsao), 43
Error covariance bounds (Faridani), 165
Fast Fourier transform (Tsao), 43
Finite elements (Zamani), 205
F-polynomials of thistles (Farrell), 341
Fractionally damped systems (Padovan), 491
Frequency domain design (Sanathanan), 431

G

Generalized rate variables (Korn), 479
Generalized system components (Korn), 479
Generation of stable 2-D polynomials (Abiri), 187
Graph theory applications (Arczewski), 351, 369
Green's function expansions (Fikioris), 1

H

Heat engines (Senft), 273
Heat transfer (Sran), 303

I

Injection/suction flow (Sran), 303
Internal-external energy conversion (Korn), 479
Inverse source problems (Chaparro), 27

L

Lead/lag compensators (Tsay), 397
L-estimates (Bovik), 125

Journal of the Franklin Institute
Vol. 324, No. 3, pp. 513–516, 1987
Pergamon Journals Ltd. Printed in Great Britain

Linear estimation of nonstationary signals (Boudaoud), 113
Linear matrix pencil (Trzaska), 465
Linear systems (Christodoulou), 237
Linear systems (El-Shal), 83
Linear systems (Shokoohi), 453
Lower bounds (Vijaya kumar), 139

M

Matched filters (Vijaya kumar), 139
Matching polynomial (Farrell), 331
Matrix calculus (Trzaska), 465
Maximum principle (Sadek), 97
Mindlin–Timoshenko plates (Sadek), 97
Model reduction (Shokoohi), 453
Multi-delay systems (Chung), 65
Multivariable feedback control systems (Tsay), 397
Multivariate densities (Willet), 421

N

N-dimensional systems (Padovan), 491
Nearly Gaussian densities (Willet), 421
Non-interative phase retrieval (Chaparro), 27
Nonlinear analysis (Mickens), 263
Nonlinear filtering (Bovik), 125
Nonlinear systems (Al-Kabbani), 319
Nonlinear systems (Kalat), 73
Nonstationary time series (Boudaoud), 113

O

Order statistics (Bovik), 125
Orthogonal polynomials (Hwang), 149

P

Polynomial series (Sparis), 173
Probabilistic networks (Onaga), 291

R

Realization (Christodoulou), 237
Reciprocating engines (Senft), 273
Rigid body systems (Arczewski), 351, 369

S

Sensitivity Analysis (Sparis), 173
Series representation of densities (Willett), 421
Signal detection (Schnitzer), 19
Signal reconstruction from magnitude (Chaparro), 27
Signal-to-noise ratio (Vijaya Kumar), 139
Singular systems (Trzaska), 465
Solid rotor machines (Gavril), 219
Stability-equation method (Tsay), 397
State estimation with quantized measurements (Faridani), 165
Statistical communication theory (Schnitzer), 19
Stirling engines (Senft), 273
Synthesis equation (Sanathanan), 431

T

Taylor series (Christodoulou), 237
Taylor series (Chung), 65
Thistle function (Farrell), 341
Time-varying autoregressive models (Boudaoud), 113
Time-varying systems (Hwang), 149
Time-varying systems (Sparis), 173

V

Very strictly Hurwitz polynomials (Abiri), 187

Y

Y-Δtransform (Onaga), 291

AUTHOR INDEX

Full titles are listed only under first authors; all co-authors are cross-referenced.

A

Abiri, M. A. : An alternative approach in generating a 2-variable very strictly Hurwitz polynomial (*VSHP*) and its application, 187
Adali, S.: See Sadek, I. S., 97
Ahmadi, M.: See Abiri, M. A., 187
Al-Kabbani, A. S. S.: Large signal-performance of active filters using amplifier pole, 319
Arczewski, K.: Application of graph theory to the determination of kinetic energy of rigid body systems, 351
Arczewski, K.: Application of graph theory to the determination of potential energy of systems consisting of rigid bodies and springs, 369

B

Bayya, A.: See Chaparro, L. F., 27
Boudaoud, M.: Composite modeling of nonstationary signals, 113
Bovik, A. C.: Spectral properties of moving L-estimates of independent data, 125
Bruch, J. C., Jr: See Sadek, I. S., 97

C

Chaparro, L. F.: Non-iterative reconstruction of signals from signed Fourier transform magnitude, 27
Chaparro, L. F.: See Boudaoud, M., 113
Chen, H. C.: See Tsay, T. S., 397
Christodoulou, M. A.: An algorithm for the realization of generalized linear systems via Taylor series expansion about an arbitrary point "a", 237
Chung, H.-Y.: Taylor series analysis of multi-delay systems, 65
Chung, S.: See Padovan, J., 491

E

El-Shal, S. M.: A control algorithm for systems with dead time, 83

F

Faridani, H. M.: Expected error covariance bounds for linear state estimators with compressed quantized measurements, 165
Farrell, E. J.: Counting matchings in graphs, 331
Farrell, E. J.: On F-polynomials of thistles, 341
Fikioris, J. G.: Strongly and uniformly convergent Green's function expansions, 1

G

Gavril, S.: Influence of stator slotting on the performance of solid rotor induction machines, 219
Guo, Y. H.: See Padovan, J., 491

H

Halverson, D. R.: See Schnitzer, M. S., 19
Han, K. W.: See Tsay, T. S., 397
Hwang, C.: Analysis of time-varying discrete systems using discrete Legendre orthogonal polynomials, 149

K

Kalat, J.: Solution of multipoint boundary value problems via block-pulse functions, 73
Kodama, S.: See Ohta, Y., 245
Korn, J.: Modelling of devices as generalized system components, 479

M

Maeda, H.: See Ohta, Y., 245
Mertzios, B. G.: See Christodoulou, M. A., 237
Mickens, R. E.: Periodic solutions of second-order nonlinear difference equations containing a small parameter—IV. Multi-discrete time method, 263
Mor, A.: See Gavril, S., 219
Mouroutsos, S. G.: See Sparis, P. D., 173

O

Ohta, Y.: Factorization of the minors of characteristic matrix *sI-A* and *DM* decomposition of its representation graph, 245
Onaga, K.: Condensation of a 3-terminal subnetwork into a delta in probabilistic networks, 291

P

Padovan, J.: Asymptotic steady state behavior of fractionally damped systems, 491
Paraskevopoulos, P. N.: See Kalat, J., 73

Q

Quinn, S. B., Jr: See Sanathanan, C. K., 431

R

Ramachandran, V.: See Abiri, M. A., 187
Restrepo, A.: See Bovik, A. C., 125

S

Sadek, I. S.: Structural control to minimize the dynamic response of Mindlin–Timoshenko plates, 97
Sanathanan, C. K.: Controller design via the synthesis equation, 431
Schnitzer, M. S.: Discrete time robust detection of stochastic signals in non-Gaussian contaminated noise, 19
Senft, J. R.: Mechanical efficiency of kinematic heat engines, 273
Shokoohi, S.: Block-balancing of linear systems, 453
Shyu, K.-K.: See Hwang, C., 149
Sloss, J. M.: See Sadek, I. S., 97
Sparis, P. D.: Output sensitivity analysis of time-varying linear systems using polynomial series, 173
Sran, K. S.: Heat transfer in a dipolar flow through a porous channel, 303
Sun, Y.-Y.: See Chung, H.-Y., 65

T

Thomas, J. B.: See Willett, P. K., 421
Thompson, M. W.: See Schnitzer, M. S., 19
Trzaska, Z.: An efficient algorithm for partial fraction expansion of the linear matrix pencil inverse, 465
Tsalamengas, J. L.: See Fikioris, J. G., 1
Tsao, N.-K.: The equivalence of decimation in time and decimation in frequency in FFT computations, 43
Tsay, T. S.: Stability-equation method for multivariable feedback control systems with lead/lag compensators, 397

V

Vachtsevanos, G.: See Christodoulou, M. A., 237
Veeravalli, V. V.: See Vijaya Kumar, B. V. K., 139
Vijaya Kumar, B. V. K.: Approximate lower bound for the SNR of matched filters, 139

W

Wang, S.-L.: On revising the definition of the dielectric loss angle, 387
Willett, P. K.: On Gaussian-like densities of order greater than two, 421

Z

Zamani, N. G.: A finite element based collocation method for eigenvalue calculations, 205